

REMARKS

The present invention is a method for gas stunning of animals for slaughter arriving at a slaughter house in transport crates in accordance with the embodiment of the invention includes gas stunning of animals being achieved while the animals are still in transport crates 6 and where the transport crates and animals are conveyed successively by means of conveyors 18 through a stunning chamber 10 wherein an influence of the gas for stunning the animals is adjusted while the animals are within the stunning gas by shortening or lengthening a conveying time and adjusting a conveying route of the transport crates through the stunning chamber. In accordance with the invention, the stunning chamber is divided into a number of horizontal zones, such as 3, where the gas concentration is different and successively higher in the lower zones as described in paragraph [0022] of the Substitute Specification. Adjustment of the conveying route in combination with the speed of the conveyor is used to provide optimum stunning of the animals as described in paragraph [0025] - [0029].

A new Supplemental Declaration is submitted herewith as required by the Examiner.

The Examiner has objected to the Abstract of the Disclosure. However, the Examiner should note that inadvertently the amended form of the Abstract was attached to the marked up copy of the specification. However, a copy of the Abstract as amended is attached again. With respect to the Examiner's statement regarding the word "means", the Examiner should note that the word "means" is not used in the context of a means plus function limitation and therefore, it is submitted that the language of the Abstract is appropriate.

Claims 8 and 16-23 stand objected to for informalities noted by the Examiner.

The claims have been amended to overcome the stated grounds of objection.

Claims 8-11 stand rejected under 35 U.S.C. §102 as being anticipated by United States Patent 5,487,699 (Tyrrell et al). These grounds of rejection are traversed for the following reasons.

Claim 8 recites:

A method for gas stunning of animals for slaughter arriving at a slaughterhouse in transport crates, where gas stunning of the animals is achieved while the animals are still in the transport crates, and where the transport crates and the animals, are conveyed successively by means of conveyors through a stunning chamber, wherein an influence of the gas for stunning the animals is adjusted while the animals are within the stunning gas by shortening or lengthening a conveying time and adjusting a conveying route within the stunning gas of the transport crates through the stunning chamber.

Tyrrell et al do not disclose the limitation "wherein an influence of the gas for stunning the animals is adjusted while the animals are within the stunning gas by shortening or lengthening time and adjusting a conveying route of the transport crates through the stunning chamber." While the speed of conveying Tyrrell et al's containers 22 may be varied, Tyrrell et al do not disclose the combination of adjusting an influence of the gas for stunning the animals while the animals are in the stunning gas by shortening or lengthening a conveying time of the animals produced by a speed adjustment and adjusting a conveying route of the transport crates through the stunning chamber. As may be seen from the disclosure of the present invention, the horizontal conveyor 18 may be placed at different levels to thereby adjust the conveying route of the transport rates through the stunning chamber. While the Examiner refers to varying the conveying of the transport crates at point 22 of Tyrrell et al, such variation does not vary the conveying route of the

transport route through the stunning gas in the stunning chamber since Tyrrell et al only discloses that the stunning chamber is a single level with a fixed length and therefore, cannot adjust a conveying route of the transport crates within the stunning gas through the stunning chamber as claimed. Accordingly, it is submitted that claim 8 is not anticipated.

Claim 10 further limits claim 8 in reciting "wherein adjustment of the conveying route through the stunning chamber is achieved by lowering or lifting a substantially horizontal conveyer running therein, which conveyer provides for conveying of the transport crates through the stunning chamber between a downwards running conveyer and an upwards running conveyer." While, Tyrrell et al have a horizontal conveyer which is above the stunning chamber, only one vertically fixed conveyor is part of the stunning chamber within the stunning gas. Claim 11 is patentable for the same reasons set forth above with respect to claim 10.

Claims 12-15 stand rejected under 35 U.S.C. §103 as being unpatentable over Tyrrell et al in view of WO 94/27425 (Jull et al). Claims 12-15 further limit claims 8-11 in reciting "wherein an influence of the gas for stunning the animals is adjusted by varying gas concentration at varying levels in the stunning chamber with an increasing gas concentration being applied in a downwards direction in the stunning chamber". These grounds of rejection are traversed for the following reasons.

First, Jull et al have been cited as disclosing "an influence of the gas for stunning the animals is adjusted by varying the gas concentration at varying levels of the stunning chamber - at 40 or 106, as increasing gas concentrations as applied in

a downwards direction in the stunning chamber...". Therefore, Jull et al do not cure the deficiencies noted above with respect to Tyrrell et al.

While Jull et al do disclose a stunning chamber in which there is an air stunning gas interface 134, as shown in Fig. 6, such teaching does not meet or render obvious the subject matter of claims 12-15 which require adjustment of gas concentration at varying levels. All that Jull et al discloses is that there is an air interface in the stunning chamber and that heavier than air gas accumulates in the bottom of the chamber as illustrated in Fig. 6. However, this does not constitute the claimed adjusting by varying gas concentration at varying levels as recited in the claims.

Claims 16-23 further stand rejected as being unpatentable over Tyrrell et al, modified by Jull et al for the reasons set forth above with respect to claims 12-15. This ground of rejection is traversed for the following reasons.

Claims 16-23 further limit claims 8-15 in reciting "a substantially horizontal conveyor which receives and introduces transport crates and the animals for slaughter into a gas-filled stunning chamber in which a downwards running conveyor is arranged, for successively conveying transport crates downwards in the stunning chamber, and an upwards running conveyor which is arranged for successively conveying the transport crates upwards out of the stunning chamber, wherein the downwards running conveyor comprises substantially vertical conveyors, each comprising mutually interacting endless chain conveyors which support opposite sides of the transport crates for downwards conveying of the transport crates in the stunning chamber, the upwards running conveyor comprises a substantially vertical conveyor comprising mutually interacting endless chain conveyors which support

opposite sides of the transport crates for upwards conveying from the stunning chamber, and between the downwards and upwards running conveyors there is a substantially horizontal conveyor which provides horizontal conveying of the transport crates through the stunning chamber, which horizontal conveyor furthermore is lifted and lowered respectively between levels with varying gas concentrations in the stunning chamber. " There is no disclosure of the claimed conveyor in either of the teachings of Tyrrell et al or Jull et al alone or in combination. Fig. 6 of Jull et al shows a carousel which successively lowers the crate 118 downward into the chamber but such carousel does not correspond to the claimed horizontal conveyor being lifted and lowered respectively between levels with varying gas concentrations in the stunning chamber as recited in the claims.

Claims 24-31 stand rejected under 35 U.S.C. §103 as being unpatentable over Tyrrell et al as modified by Jull et al further in view of United States Patent 5,788,564 (Chamberlain). Chamberlain has been cited as disclosing sensors for monitoring the concentration of gas in a stunning zone. However, the teachings of Chamberlain do not overcome the deficiencies cited above with respect to Tyrrell et al and Jull et al.

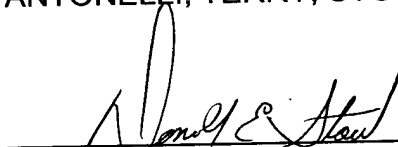
Claims 32-40 stand rejected under 35 U.S.C. §103 as being unpatentable over Tyrrell et al as modified by Jull et al further in view of United States Patent 5,902,177 (Tessier et al). Tessier et al have been cited for the disclosure of a control system. However, Tessier et al do not cure the deficiencies noted above with respect to Tyrrell et al and Jull et al.

In view of the foregoing amendments and remarks, it is submitted that each of the claims in the application is in condition for allowance. Accordingly, early allowance thereof is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 C.F.R. §1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (900.43156X00) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

A handwritten signature in black ink, appearing to read "Donald E. Stout", is written over a horizontal line.

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Attachments

DES:dlh